

IN THE ABSTRACT:

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An optical inspection unit inspects a surface of an object under inspection optically. A processing unit detects defects on the surface of the object under inspection and their features according to inspection results from the optical inspection unit, detects positions of the detected defects on the surface of the object under inspection, and classifies the detected defects according to their features. The processing unit selects the defects, on which a X-ray analysis should be performed, according to predetermined conditions about the features or the classification results of the defects. ~~Or the~~ Alternatively, the processing unit displays the positions and the classification results of the defects, and an operator picks the defects, on which the X-ray analysis should be performed. A X-ray inspection unit performs the X-ray analyses on the selected or picked defects.